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Federal Communications Commission
Office of Secretary

February 7, 2006

Ex Parte via Hand Delivery

Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

> *Re: Petition of the Verizon Telephone Companies for Forbearance under 47 U.S.C. § 160(c) from Title II and Computer Inquiry Rules with Respect to Their Broadband Services, WC Docket 04-440*

Dear Ms. Dortch:

At the request of the Commission's staff, this letter provides the following information relating to the relationship between Verizon's pending forbearance petition and the Commission's *Wireline Broadband Order*[1]: (1) discussion of the types of broadband services for which Verizon is seeking forbearance other than those addressed in the *Wireline Broadband Order*; (2) discussion of the types of Title II regulations that apply to those services and for which forbearance is therefore requested; (3) discussion of how these services meet the same criteria that the Commission identified in the *Wireline Broadband Order* in permitting broadband Internet access and related transport services to be offered on a private-carriage basis, without the burdens of Title II; and (4) the current state of competition for the services at issue.

[1] *See Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853 (2005) ("*Wireline Broadband Order*").

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1. Services for Which Verizon[2] Is Seeking Forbearance

Verizon's petition requests forbearance from traditional common-carriage requirements for all broadband services. The Commission has previously determined that mandatory common-carriage treatment is inappropriate for many broadband services, including broadband Internet access services sold primarily to mass-market customers, and the underlying broadband transmission services that are used to provide Internet access services. The Commission has not yet extended that same flexibility to other broadband transmission services that are not used for Internet access and that are sold primarily to enterprise customers. But given the sophistication of these customers, the flexibility needed to meet their complex and diverse needs, and the vigorous competition for their business, the Commission should forbear from mandatory common-carriage regulation for these broadband services as well and allow Verizon the same option to offer them on either a private-carriage or common-carriage basis.

The Commission has previously defined "broadband" services as those capable of 200 kbps in each direction.[3] This definition accordingly provides the baseline for the speed or bandwidth of the services for which we seek relief. In addition, Verizon has consistently maintained – both in the wireline broadband proceedings,[4] and in this proceeding[5] – that the Commission could define broadband to exclude TDM-based services. This approach would enable the Commission to address any concerns that granting the requested relief would undermine the availability of traditional TDM-based special access services used to serve business customers.[6]

Consistent with this approach, there are two principal categories of services remaining for which Verizon is seeking relief. The first category is packet-switched services capable of 200 kbps in each direction. These are services that route or forward packets, frames, cells, or other data units based on the identification, address, or other routing information contained in the packets, frames, cells, or other data units. This category includes Frame Relay services, ATM services, IP-VPN services, and Ethernet services.

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[2] Since the time of its original petition, MCI, Inc. merged into MCI, LLC, a wholly owned subsidiary of Verizon Communications Inc. Most MCI, LLC business units, and certain other business owned by Verizon Communications Inc. that serve enterprise and government customers, call themselves Verizon Business. Verizon Business operating units are included in the scope of relief requested here.

[3] *See* Fourth Report to Congress, *Availability of Advanced Telecommunications Capability in the United States*, 19 FCC Rcd 20540, at 10 (2004).

[4] *See, e.g.*, Verizon Comments in CC Docket No. 01-337, at 9-10 (FCC filed Mar. 1, 2002); Verizon Petition for Limited Reconsideration of Title I Broadband Order in CC Docket No. 02-33, at 2 n.3 (FCC filed Nov. 16, 2005).

[5] *See* Verizon Reply Comments in WC Docket No. 04-440, at 8 n.21 (FCC filed Mar. 10, 2005).

[6] *See Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd 16978, ¶ 294 (2003) ("*Triennial Review Order*"); *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, Order on Reconsideration, 19 FCC Rcd 20293, ¶¶ 20-21 (2004).

The second category includes non-TDM based optical networking, optical hubbing, and optical transmission services. These are very high-speed transmission services – well over the Commission's 200 kbps definition for broadband – that are provided over optical facilities at OCn speeds (but include no services at DS1 or DS3 speeds). These services are used to support a wide variety of applications used by business customers, and in particular very large enterprise customers. These services are provided both over SONET-based networks, and over Wave Division Multiplexing ("WDM") or Dense Wave Division Multiplexing ("DWDM") networks, which are various protocols or standards for transmitting communications signals across fiber-optic facilities. This category includes the following Verizon services: Intellilight Broadband Transport; Verizon Optical Network; Optical Hubbing Service; and Intellilight Optical Transport Service.

With respect to both categories, Verizon offers these various services both to enterprise customers on a retail basis, and to other carriers on a wholesale basis. Verizon is seeking relief for the services at issue regardless of the nature of the customer to whom the service is offered.

Attachment 1 contains a more detailed description of the services that Verizon offers that qualify under each of these two categories. All of these services fall within the Commission's well-established "broadband" definition, and no traditional TDM-based special access services are included.

2. ***Regulations from Which Verizon Is Seeking Forbearance***

Verizon is seeking forbearance from the mandatory application of Title II common-carriage regulation in order to have the flexibility to provide the broadband services at issue on a common-carriage or private-carriage basis. This relief sought here is the same as the Commission already provided for broadband transmission services that are used to provide Internet access service in its recent *Wireline Broadband Order*. As the Commission recognized in that context, this flexibility will enable Verizon to "better accommodate . . . individual market circumstances," such as permitting Verizon and its customers "to modify their arrangement over time as their respective needs and requirements change without the inherent delay associated with a tariffed offering that must be made available to all" other customers. *Wireline Broadband Order* ¶ 88. This relief gives broadband providers like Verizon "the flexibility to offer these services in the manner that makes the most sense as a business matter and best enables [it] to respond to the needs of [customers] in [its] . . . service areas." *Id.* ¶ 89. This approach also "will benefit [customers] by making it more likely that they will be offered innovative service arrangements responding to their changing needs." *Id.* ¶ 92.

To the extent the Commission is concerned that granting the requested relief would potentially remove the services at issue from those contributing to the universal service fund (to the extent the services at issue are subject to such an obligation today[7]),

[7] For example, because the obligation to contribute to the universal service fund applies to interstate retail revenues, it generally does not apply to services provided on a wholesale basis.

the Commission could exercise its authority under section 254(d) to prevent that result. That section gives the Commission authority to require any "provider of interstate telecommunications . . . to contribute to the preservation and advancement of universal service if the public interest so requires." 47 U.S.C. § 254(d). The Commission could use this authority to provide for continuing contributions as an interim measure for a six-month period, which would enable the Commission to maintain current universal service funding during the time it would take to complete the pending rulemaking to adopt a new assessment mechanism for the universal service fund. In that rulemaking, Verizon and other parties have proposed comprehensive changes to the current revenue basis for universal service assessment.

3. The Services at Issue Meet the Same Criteria Used To Justify Forbearance in the Wireline Broadband Order

The Commission has "on numerous occasions has determined that a particular service can be offered on a non-common carrier or common carrier basis at the service provider's option." *Wireline Broadband Order* ¶ 94 & n.280 (citing examples). Most recently, the Commission granted this relief to wireline broadband Internet access services and to the underlying broadband transmission services in the *Wireline Broadband Order*. In reaching that determination, the Commission held that certain characteristics of the services at issue "inform[ed] [its] decision-making." *Id.* ¶ 32; *see id.* ¶ 79 (listing criteria). As demonstrated below, the broadband services at issue here meet each of those same criteria, and therefore qualify for the same regulatory treatment as the broadband transmission services addressed in the *Wireline Broadband Order*.

First, the technology used to provide the broadband services at issue here "are fundamentally changing" in ways that are "rapidly breaking down the formerly rigid barriers that separate one network from another." *Id.* ¶ 32. As a result, there are "numerous technologies and network designs that form, or potentially could form, part of the broadband telecommunications infrastructure of the 21st century." *Id.* ¶ 33. The Commission has already reached this conclusion with respect to enterprise services as a whole, observing that "the use of emerging technologies are likely to make this market more competitive, and that this trend is likely to continue in the future." *Verizon/MCI Order* ¶ 75.[8] In the *Wireline Broadband Order*, the Commission found that cable operators, mobile wireless providers, and fixed wireless operators, among others, were all offering broadband services in competition with the broadband services provided over the wireline telephone network. *See Wireline Broadband Order* ¶ 88. Many of these same technologies also are being used to compete for the broadband services at issue here, and in addition new technologies such as IP-VPN and Gigabit Ethernet are rapidly replacing older technologies such as Frame Relay and ATM.[9] These new technologies are "multi-

[8] Memorandum Opinion and Order, *Verizon Communications Inc. and MCI Inc., Applications for Approval of Transfer of Control*, 20 FCC Rcd 18433, ¶ 75 (2005) ("*Verizon/MCI Order*").

[9] *See Verizon/MCI Order* ¶ 59; *see also* S. Harris, IDC, *U.S. ATM Services 2005-2009 Forecast* at 2 (May 2005) ("ATM, frame, and private lines services are all under pressure from IP VPNs and transparent LAN (Ethernet) services. The migration from one legacy service to another will continue for a minority of customers, but the biggest threat to all traditional services comes from newer IP technologies."); B. Van

purpose in nature and more application-based, rather than existing for a single, unitary, technologically specific purpose." *Wireline Broadband Order* ¶ 40. As a result, the emergence of these technologies "will lead to greater capacity for innovation to offer new services and products" and create opportunities for both "the providers of network platforms and those that utilize the platforms . . . to capitalize on these changes." *Id.* And "as with any evolving technology, new products and providers will continue to emerge to complement existing market offerings and participants; and these offerings will grow over time as consumers demand even more advanced services, with the result that technological growth and development continue on an upward spiral." *Id.*

Second, changes in the marketplace for the broadband services at issue here require that providers have "the flexibility to respond more rapidly and effectively to new consumer demands." *Id.* ¶ 79. The Commission has already found that these broadband services are purchased by enterprise customers, "are typically the result of RFPs," "are individually-negotiated," and "are generally for customized service packages." *Verizon/MCI Order* ¶ 79. The Commission also has recognized that wholesale customers purchase high-capacity services in this same manner.[10] Due to these market conditions, carriers require flexibility in their service offerings to compete effectively. Common-carriage regulation does not afford this flexibility but instead imposes "costs, inefficiencies, and delays [that] are significant and substantially impede network development." *Wireline Broadband Order* ¶ 71. Private contractual arrangements, by contrast, "provide service providers more flexibility in developing a new technology and more incentives to do so." *Id.* ¶ 72. This is because "a service provider is more likely to invest in technologies if the service provider is able to obtain assurances through private contracts that the technologies will be used." *Id.*

Third, the current regulatory environment discourages technological innovation with respect to the broadband services at issue here. The Commission has recognized that common-carriage requirements "slow innovation" with respect to wireline broadband Internet access services, "because vendors do not create new technologies with [these] requirements in mind." *Id.* ¶ 65. This forces service providers into a dilemma: "either they must decide not to use all the equipment's capabilities, thereby reducing their operational efficiency, or they must defer deployment while the manufacturer re-engineers it to facilitate compliance with the *Computer Inquiry* rules, thereby creating unnecessary costs and service delays." *Id.* These same considerations apply here. As the Commission has acknowledged, CPE integration is one of the fastest growing segments of the enterprise market, and has enabled equipment suppliers such as Lucent, Nortel,

Dussen & J. Wilson, In-Stat, *Share of Wallet: Telecom Trends and Expenditures in the US Business Market* at 8 (Dec. 2005) ("It is beyond cliché to note the continued decline of legacy revenues; the move to IP is apparent and accelerating. Sprint, for example, announced plans earlier this year to reject new frame relay orders in two years. Furthermore, all of the major service providers continue to report flat or declining wireline data revenues, announcing (as in the case of AT&T) falling volumes and price erosion abated only by improved IP revenues.").

[10] *See Verizon/MCI Order* ¶ 52 ("Carriers that purchase wholesale special access services, whether Type I or Type II, are sophisticated customers that often rely on a competitive bid process or negotiate individual contracts, and that enter into long-term contracts.").

Siemens, Cisco and others to compete to provide increasingly sophisticated on-site communications capability to replace services that were previously provided through the network. *See Verizon/MCI Order* ¶ 64.

In sum, the same circumstances that led the Commission to forbear from Title II common-carriage regulation for wireline broadband Internet access services apply with equal or greater force here. Verizon is accordingly seeking relief that is equivalent in scope to the relief granted in the *Wireline Broadband* proceeding.

4. Additional Data on Competition for the Broadband Services at Issue

As the Commission has previously recognized, there is extensive competition for the various broadband services for which Verizon is seeking relief. Verizon is not the largest provider of any of these services, but instead faces stiff competition both from a larger competitor – AT&T – and from a long list of other significant competitors.

a. Relief from Title II is appropriate given the nature of the customers at issue and the flexibility needed to serve them

The broadband services here are purchased predominantly by enterprise customers,[11] although Verizon also makes these services available to wholesale customers. The Commission has found that competition for enterprise customers is "strong" and will remain so "because medium and large enterprise customers are sophisticated, high-volume purchasers of communications services that demand high-capacity communications services, and because there [are] a significant number of carriers competing in the market." *Verizon/MCI Order* ¶ 56. In fact, as noted above, enterprise customers often purchase broadband services through an RFP process that involves competitive bidding, and this process "is often sufficient . . . [to] compel[] the supplier to offer lower prices and improved service to retain the [enterprise] customer."[12] Moreover, enterprise customers often employ "either communications consultants or . . . in-house communications experts" to help them through this process. *Verizon/MCI Order* ¶ 76. As the Commission recognized, "[t]his is significant not only because it demonstrates that these users are aware of the multitude of choices available to them, but also because they show that these users are likely to make informed choices based on expert advice about service offerings and prices." *Id.*

The Commission also has found that Verizon competes with a long list of competitors for enterprise customers, "includ[ing] interexchange carriers, competitive LECs, cable companies, other incumbent LECs, systems integrators, and equipment vendors." *Id.* ¶¶ 64, 74. The Commission concluded that these "myriad providers are

[11] *See Verizon/MCI Order* ¶ 57; *id.* ¶ 60 ("larger businesses often contract for more sophisticated services, including Frame Relay [and] virtual private networks"); *Triennial Review Order* ¶¶ 46, 129.

[12] Memorandum Opinion and Order, *SBC Communications Inc. and AT&T Corp., Applications for Approval of Transfer of Control*, 20 FCC Rcd 18290, ¶ 74 n.226 (2005).

prepared to make competitive offers," and that they therefore "ensure that there is sufficient competition." *Id.* ¶ 74. These facts all remain true today.

b. There are many competitors offering the broadband services at issue here

Within the enterprise segment, competition for broadband services is particularly intense, with Verizon as just one member of a pack of competitors offering these services, rather than in the lead. It is widely recognized that AT&T is the largest provider for enterprise customers, both with respect to the provision of all communications services, and also with respect to the provision of broadband services to these customers. For example, according to a survey of Enterprise telecom decision makers by Bernstein, the largest "primary" data carrier among enterprise customers is AT&T.[13] The largest "secondary" data carrier is Sprint, followed by AT&T.[14]

In addition, myriad other providers compete to serve this segment of the market as well. Wall Street analysts have noted, for example, that "[a] notable aspect of the enterprise market is the markedly higher share garnered by smaller, niche service providers for data services than for voice services."[15] Moreover, as noted above, the Commission has acknowledged that "the use of emerging technologies" is transforming the provision of data services, and that this is "likely to make this market more competitive, and that this trend is likely to continue in the future." *Verizon/MCI Order* ¶ 75.

Just as broadband data services sold to enterprise customers are competitive overall, the same is true of the specific services that are the focus of this petition. The two most widely used services in this category are ATM and Frame Relay, but newer services such as IP-VPN and Ethernet are growing rapidly in importance. *See, e.g.*, *Verizon/MCI Order* ¶ 59. For all of these services, there are multiple competitive suppliers in Verizon's region. And as with respect to enterprise services as a whole, AT&T is the leading provider of many or all of these services. *See* Attachment 3.

In addition to AT&T, other competitive providers of ATM and Frame Relay services within Verizon's region include Sprint,[16] McLeodUSA,[17] TelCove,[18] Qwest,[19]

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[13] J. Halpern, *et al.*, Bernstein Research Call, *U.S. Telecom: Bells' Positions Improving in Enterprise As Buyers Shift to Multiple Primary Suppliers* at Exhibit 3 (June 20, 2005) (AT&T 35%, MCI 28%, Sprint 12%, ILEC 7%, Other 19%). *See also* D. Barden, *et al.*, Banc of America Securities, *Merger Monitor XI* at 3 (Oct. 3, 2005) ("SBC's acquisition of AT&T will catapult SBC to the number one market share position in the large enterprise data, IP and voice long haul market.").

[14] J. Halpern, *et al.*, Bernstein Research Call, *U.S. Telecom: Bells' Positions Improving in Enterprise As Buyers Shift to Multiple Primary Suppliers* at Exhibit 4 (June 20, 2005) (Sprint 31%, AT&T 16%, ILEC 16%, MCI 6%, Qwest 6%, Other 25%).

[15] *Id.* at 5.

[16] Sprint, *Domestic ATM*, http://www.sprint.com/business/products/products/atmSprintlink.jsp ("Sprint ATM works for sophisticated service providers and enterprises needing high-speed transport up to 10 Gbps

Xspedius,[20] Conversent,[21] Cavalier,[22] and Global Crossing.[23] Carriers providing IP/VPN services include AT&T,[24] Sprint,[25] TelCove,[26] Global Crossing,[27] SAVVIS,[28] XO,[29]

(higher than DS3) to consolidate intracompany voice, data and video traffic, while maintaining the highest level of network performance.").

[17] McLeodUSA, *Preferred Advantage Metro Frame Relay*, http://www.mcleodusa.com/ProductDetail.do?com.mcleodusa.req.PRODUCT_ID=340910 ("McLeodUSA Preferred Advantage Metro Frame Relay links multiple office locations through an advanced, secure frame relay network, which works within either public or shared wide area networks.").

[18] TelCove, *ATM*, http://www.telcove.com/products/atm.asp (TelCove's "ATM and Frame Relay services are able to inter-work to create a hybrid (Frame-ATM) network that best meets a customer's network application requirements.").

[19] Qwest, *ATM Service*, http://www.qwest.com/pcat/large_business/product/1,1016,767_4_2,00.html ("Qwest ATM provides high speed, reliability and security for data, video, voice and Internet communications to keep you positioned in the global marketplace.").

[20] Xspedius, *Enterprise Customers: Data ConneX*, http://www.xspedius.com/customersolutions/data_connex.aspx ("Xspedius Communications, Inc. provides managed and unmanaged Frame Relay transport services in over 30 U.S. markets, utilizing its own MPLS backbone with ATM and Frame at the edge.").

[21] Conversent, *Conversent Secure Private Networks (ATM)*, http://www.conversent.com/website/products/index.asp?prodId=24&pId=14&type=data (Conversent's "Secure Private Network Solutions leverages proven ATM technology to provide a perfect solution for businesses looking to transmit mission critical information between remote offices and a host location without fear of interception, loss, or corruption of data.").

[22] Cavalier Telephone, *Data Solutions from Cavalier Business Communications*, http://www.cavtel.com/business/data_solutions.shtml (Cavalier offers frame relay with "Secure site-to-site connectivity with 'best effort' performance for delay tolerant traffic.").

[23] Global Crossing, *Frame Relay Service*, http://www.globalcrossing.com/xml/services/serv_data_frame_rel_over.xml (Global Crossing offers "one of the world's most extensive FR/ATM networks [which] allows you to link sites around the globe free from interoperability concerns.").

[24] AT&T, *IP and IP VPN*, http://www.business.att.com/service_portfolio.jsp?repoid=ProductCategory&repoitem=eb_vpn&serv_port=eb_vpn&segment=ent_biz ("AT&T VPN gives you choices in your network design of sophisticated VPN technologies, access, security, voice and WiFi offers, with the flexibility to add on options such as Voice over IP, Video, remote access and hosting.").

[25] Sprint, *IP VPN*, http://www.sprint.com/business/products/products/hardwareBasedIP-VPN.jsp ("Sprint IP Virtual Private Network (VPN) services deliver a best-of-both-worlds approach to connectivity, delivering the flexibility and global reach of the public Internet and the security and performance of a private networking solution.").

[26] TelCove, *IP VPN*, http://www.telcove.com/products/ip-vpn.asp ("With TelCove's IP-VPN offerings, critical voice and IT services can be converged using one of the industry's most scaleable, reliable, and efficient private communications networks.").

[27] Global Crossing, *IP VPN Service*, http://www.globalcrossing.com/xml/services/serv_data_ipvpn_over.xml ("Global Crossing provides one of the most powerful and versatile fully managed IP VPN solutions available today.").

[28] SAVVIS, Inc., *Network Services*, http://www.savvis.net/corp/Products+Services/Network/ ("SAVVIS operates an integrated global IP and transport network that delivers IP VPN . . . solutions for enterprises and carriers alike.").

[29] XO Communications, *XO VPN*, http://www.xo.com/products/smallgrowing/data/vpn/index.html ("XO VPN (Virtual Private Network) is a secure encrypted network solution that secures data traffic via

Equant,[30] Level 3,[31] and BT Infonet.[32] Competing providers of Ethernet services within Verizon's region include Time Warner Telecom,[33] TelCove,[34] Looking Glass,[35] Level 3,[36] ICG,[37] Cogent,[38] and OnFiber.[39] In sum, Verizon faces significant and varied competition both nationally and within its own traditional service area. The sophisticated business customers who purchase these types of services have many competitive options.

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encryption between your remote employees and your corporate network or among your various office locations. XO VPN is a cost-efficient solution for companies without a heavy investment in infrastructure or personnel.").

[30] Equant, *Equant IP VPN*, http://www.equant.com/content/xml/prod_serv_ipvpn.xml ("Equant IP VPN is a fully managed, business-class service designed to provide a flexible, reliable and cost-effective network infrastructure. It's backed by the highest levels of performance, quality, data integrity and security – all of which are essential to your e-business.").

[31] Level 3 Communications, *(3)Flex Network IP VPN*, http://www.level3.com/3248.html (Level 3's IP VPN "service allows corporations, government entities, and distributed businesses of any size to replace multiple networks with a single, cost-effective solution that greatly simplifies the converged transmission of voice, video, and data.").

[32] BT Infonet, *IP VPN*, http://www.bt.infonet.com/services/internet/ip_vpn.asp (BT Infonet's "IP VPNs are run over our global IP network for fully meshed, any-to-any connectivity between multiple locations for a lower cost of ownership than a private network.").

[33] Time Warner Telecom, *Ethernet Internet Service (EIS)*, http://www.twtelecom.com/cust_solutions/ services/ethernet_internet.html (Time Warner Telecom offers Gigabit Ethernet, including "[f]ractional, full, or burstable solutions from 20 Mbps – 1000 Mbps (1 Gbps).").

[34] TelCove, *Metro Ethernet and Intercity Ethernet Service*, http://www.telcove.com/products/ethernet.asp (TelCove offers Ethernet services with "[b]andwidth from 10 Mbps to 10 Gbps for Metro Ethernet.").

[35] Looking Glass Networks, *EtherGLASS – Ethernet Services*, http://www.lglass.net/products/etherglass.jsp ("Gigabit Ethernet services are available on either 1000Base-SX (multimode fiber), or 1000Base-LX (single mode fiber) interfaces, at transmission speeds that are configurable from 10 Mbps to 1000 Mbps, depending on your requirements.").

[36] Level 3 Communications, *(3)Flex Ethernet*, http://www.level3.com/1505.html (Level 3 "Ethernet provides scalability from a DS-3 or 100BaseT to multiple Gigabit Ethernet interfaces as well as to OC-48 (2.5 Gbps).").

[37] ICG Communications, *Metro Ethernet*, http://www.icgcomm.com/products/corporate/metroe.asp ("ICG's Metro Ethernet is a flexible transport service that provides connectivity across the local metropolitan geography using Ethernet as the core protocol" and is offered at up to "1Gbps (1000Mbps) – Gig-E.").

[38] Cogent Communications, *Ethernet Point-to-Point Services*, http://www.cogentco.com/htdocs/ ethernet.php ("Cogent's point-to-point GigE connections are popular solutions for NetCentric customers who need room to grow. Implement a redundant or backup network or access remote storage locations – Cogent's network has the capacity you need.").

[39] OnFiber Communications, *Ethernet*, http://www.onfiber.com/content/ index.cfm?fuseaction=showContent&contentID=22&navID=22 ("OnFiber Ethernet service provides the ease of Ethernet local area network technology extended across the metro or across the country. It offers a simple, cost-effective, and non-oversubscribed solution for interconnecting locations. With standard LAN interfaces, this service provide customers a highly affordable way to link sites together at speeds ranging from 1 Mbps to 1 Gbps.").

With respect to the optical transmission services at issue here, there is likewise extensive competition. As the Commission has recognized, there is "substantial deployment of competitive fiber loops at OCn capacity and competitive carriers confirm they are often able to economically deploy these facilities to the large enterprise customers that use them." *Triennial Review Remand Order* ¶ 183.[40] Competing carriers are able to deploy new OCn-level facilities without significant difficulty, because these types of facilities "produce revenue levels which can justify the high cost of loop construction, providing the opportunity for competitive LECs to offset the fixed and sunk costs associated with the loop construction." *Triennial Review Order* ¶ 316.[41] Moreover, the "[l]arge enterprise customers purchasing services over OCn loops enter into long-term contracts committing to revenue streams and associated early termination charges that provide the ability for carriers to recover their substantial non-recurring 'set-up' or construction costs." *Triennial Review Order* ¶ 316. Consistent with these findings, "there does not appear to be any evidence of demand for incumbent LEC OCn level unbundled loops," which further shows that competing carriers are deploying these high-speed optical facilities themselves or obtaining them from third parties. *Id.* ¶ 315. In sum, there is no chance that Verizon could exercise market power with respect to these competitive services, and, hence, no justification for continued application of mandatory Title II regulation.

c. *There should be no market share test for relief, but such data does provide further evidence of competition for the broadband services here*

Congress did not establish a market share test for forbearance, and the Commission should not adopt one here.[42] As the Commission has recognized, data on the availability of competitive alternatives are more probative than backward looking market share data. This is particularly true with services provided in a dynamic market, like the broadband transmission services at issue here.

As the Commission recently recognized in the *Verizon/MCI Order*, market share data for enterprise customers is entitled to little weight because it "does not reflect the rise in data services, cable and VoIP competition, and the dramatic increase in wireless," nor the fact that "myriad providers are prepared to make competitive offers." *Verizon/MCI Merger Order* ¶ 74. As a result, "market shares may misstate the competitive significance of existing firms and new entrants." *Id.*

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[40] *Unbundled Access to Network Elements; Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, Order on Remand, 20 FCC Rcd 2533, ¶ 183 (2005) ("*Triennial Review Remand Order*"); *see also Triennial Review Order* ¶ 315.

[41] *See also Triennial Review Remand Order* ¶ 182 n.493 ("Despite these costs, the revenue possibilities of dark fiber are great enough to make self-deployment economic.").

[42] The Commission adopted a parallel approach in the UNE context, where it expressly "decline[d] to determine impairment based on a certain level of retail competition because section 251(d)(2) requires us to ask whether requesting carriers are 'impaired,' not whether certain thresholds of retail competition have been met." *Triennial Review Order* ¶ 114.

To the extent the Commission does look at market share data, it also has recognized that such data must be interpreted carefully. Any evaluation of competition within a given market must consider "the presence and the capacity of rival carriers in specific markets, rather than simply . . . their current subscriber market shares."[43]

These findings are particularly true here, because the services at issue are provided in a dynamic market. *See Verizon/MCI Order* ¶ 57; *AT&T Wireless/Cingular Order* ¶ 118. As described above, technological developments are rapidly changing the nature of services that enterprise customers are purchasing, and thereby creating opportunities for new providers to fulfill these needs. For example, IP-based services are rapidly replacing previous generation of broadband data services like ATM and Frame Relay. This means that legacy market shares are a particularly poor predictor of future industry trends.

With these caveats in mind, Verizon is providing the following types of market share data here. First, the attached Lehman Brothers report (*see* Attachment 2) contains market share estimates for "enterprise" customers, which it defines as a $152 billion market segment that includes large enterprise customers, wholesale services, and small and medium enterprises.[44] The Lehman report estimates that, for 2005, Verizon's and MCI's combined share of all services provided to enterprise customers was 22 percent.[45] The Lehman Report also affirms the Commission's prior findings that for enterprise services as a whole, as well as for various types of those services, there are multiple competitive providers.[46]

Second, Attachment 3 provides the results of Verizon's internal analysis of national market share for enterprise customers with respect to the following categories: (1) fast-packet services; (2) Frame Relay services; (3) ATM services; (4) IP-VPN services; and (4) Ethernet Services.[47] These estimates were calculated by analyzing total enterprise demand for these services nationwide, and then comparing that total to Verizon's retail revenues for the same services.[48]

This analysis confirms that Verizon is only one of many significant providers of these services, none of whom has anything close to a dominant share. For fast-packet

[43] Memorandum Opinion and Order, *Applications of AT&T Wireless Services, Inc. and Cingular Wireless Corporation for Consent To Transfer Control of Licenses and Authorizations*, 19 FCC Rcd 21522, ¶ 185 (2004) ("*AT&T Wireless/Cingular Order*").

[44] *See* R. Dale Lynch & Blake Bath, Lehman Brothers, *Enterprise Telecom; A Comeback Begins* at 3 (Nov. 11, 2003) ("*Lehman Report*"); *see also Verizon/MCI Order* ¶ 73 & n.219 (relying on this analyst report).

[45] *See Lehman Report* at 15, Fig. 12.

[46] *See id.* at 18, Fig. 16.

[47] Fast-packet services are made up of ATM and Frame Relay services; IP-VPN and Ethernet are separate. This attachment also contains market-share data for enterprise services as a whole, which indicates that Verizon's market share (including MCI) is lower than what Lehman reports.

[48] For a more detailed description of the methodology, see Attachment 3 and the Declaration of Jeffrey E. Taylor, Attachment 4 to Verizon's Public Interest Statement, WC Docket No. 05-75 (filed Mar. 11, 2005).

services (which include Frame Relay and ATM), Verizon's nationwide share is approximately **[Begin Confidential]** **[End Confidential]** based on pre-merger shares of **[Begin Confidential]** **[End Confidential]** for Verizon and **[Begin Confidential]** **[End Confidential]** for MCI. This share is smaller than AT&T's, and there are also multiple other providers, many with double-digit or high-single-digit shares, both for fast-packet services as a whole, and for ATM and Frame Relay individually. For IP-VPN and Gigabit Ethernet services, Verizon's nationwide shares are **[Begin Confidential]** **[End Confidential]** and **[Begin Confidential]** **[End Confidential]**, respectively, which likewise indicates the existence of multiple other competing providers.[49] Verizon has not been able to perform similar market-share estimates for the optical services at issue here because data for those services is available only combined with data for TDM-based high-speed services, and Verizon is unable to separate the two. In sum, these data show that Verizon is just one of many competitive providers for fast-packet services and very high speed transport services.

Moreover, because the bulk of Verizon's market share for these services derives from the former MCI's customer base, which is spread throughout the country, these data indicate that Verizon's share is not significantly different within its own local footprint than for the nation as a whole. Indeed, with respect to the large national customers that were the core of MCI's enterprise business, the Commission found that, without considering MCI, "Verizon is not one of the top five" providers and that its "share of this market is one percent or less." *Verizon/MCI Order* ¶ 73.

Finally, the Commission relied on and included more granular market share data for ATM and frame relay services in the *Verizon/MCI Order*, and may therefore rely on that same data here. As Verizon explained in that proceeding, however, there are a number of important caveats about using these data as a measure of market share.

The data on which the Commission previously relied are based on third party survey results compiled by Harte-Hanks. Harte-Hanks compiles data from telephone interviews of on-site personnel in IT and telecommunications departments for 500,000 customer sites. These data show the percentage of customer sites at which a carrier is a provider for ATM/Frame Relay, but do not reflect the percentage of surveyed customer sites (or customers) for which a carrier is one provider, regardless of whether there are one or more other providers also serving those sites. These data are presented for each of the twelve states (as well as the District of Columbia) in the former Bell Atlantic/NYNEX territories and six different MSAs in the former GTE territory (Dallas-Fort Worth, Long Angeles-Long Beach, Portland-Vancouver, Raleigh-Durham, Seattle-Tacoma-Olympia, and Tampa-St. Petersburg).

The Harte-Hanks "customer share" data treat all customers as equal and do not differentiate between customers who spend more and those who spend less. The data also

[49] The market share estimates for IP-VPN and Ethernet are based on more recent data collected by Verizon Business, using the same methodology as used for Fast-packet, ATM, and Frame Relay.

do not distinguish among the different providers of a single customer. For example, large business customers often have more than one provider (*e.g.*, a primary provider and a secondary provider that may function as a backup). The Harte-Hanks "customer share" data count the two providers equally. For these reasons, two providers with equal "customer shares" might have very different shares of revenues and or lines. More generally, the Harte-Hanks data were not designed to create a statistically accurate and significant representation of the universe of providers; Harte-Hanks reports disaggregated data from Verizon, even where the results are not statistically significant.

Nonetheless, to the extent the Commission seeks to rely on the Harte-Hanks data as it did in the *Verizon/MCI Order*, these data provide further confirmation that the degree of competition that Verizon faces warrants forbearance. For example, according to the Harte-Hanks data, the HHI for Frame Relay services in each of the geographic study areas is lower than the HHI with respect to wireline broadband Internet access services and related transport, for which the Commission found that the elimination of Title II common-carriage regulations was appropriate.[50]

The Harte-Hanks data also show that Verizon's shares for ATM and Frame Relay are below the levels at which the Commission found non-dominant treatment appropriate for AT&T. When the Commission declared AT&T to be non-dominant in the provision of domestic interstate interexchange services, AT&T's market share of such services was estimated to be sixty percent.[51] Likewise, AT&T's share of the international message telephone service market was estimated to be sixty percent when AT&T was declared non-dominant in the provision of those services, and in a number of countries, AT&T's market share was significantly higher.[52] Indeed, all the share data provided here show levels lower than these precedents.

d. None of the findings in the Verizon/MCI Order undermines the competitive showing here

Finally, the Commission should not have the same concern it expressed in the *Verizon/MCI Order* that Verizon may be the only carrier that has deployed fiber to certain buildings within its region. First, the Commission's concern in the merger proceeding related only to wholesale providers. *See Verizon/MCI Order* ¶ 32. With respect to retail enterprise services, the Commission recognized that the customers who buy these services already have "myriad" choices and "given their size and geographically-dispersed operations, these customers are highly sophisticated and negotiate for significant discounts." *Id.* ¶¶ 74, 75. Further, the Commission found that

[50] *See Wireline Broadband Order* ¶ 51 (noting 60.3 percent share for cable modem and 37.2 percent share for DSL).

[51] Order, *Motion of AT&T Corp. to be Reclassified as a Non-Dominant Carrier*, 11 FCC Rcd 3271, ¶ 62 (1995).

[52] AT&T's average market share in 76 select countries was 74%, and AT&T faced no competition at all in four countries. Order, *Motion of AT&T Corp. to be Declared Non-Dominant for International Service*, 11 FCC Rcd 17963, ¶ 40 (1996).

"systems integrators and the use of emerging technologies are likely to make this market more competitive, and that this trend is likely to continue in the future." *Id.* ¶ 75.

Second, with respect to wholesale services, for broadband services that are provided below the very high speeds of the broadband transmission services at issue here, competing carriers can provide service to all locations either by using their own or third party facilities where they exist, or by leasing TDM-based special access facilities (or high-capacity UNEs, where available) from Verizon and connecting their own packet-switching equipment to those facilities. As noted above, the relief that Verizon seeks does not extend to traditional TDM-based special access facilities. Thus, as the Commission has found, "[i]n buildings where a competitive LEC is not directly connected to a building via its own facilities and where customer demand may not justify the construction of competitive facilities (such as where demand is less than the OCn level), competing carriers can either combine competitive transport with special access loops or, where available, high-capacity loop UNEs purchased from Verizon." *Verizon/MCI Order* ¶ 41; *see also id.* ¶ 45 & n.125; *Triennial Review Remand Order* ¶¶ 161-163. And as the Commission further acknowledged, there are "numerous competitors" already in the market that are capable of competing in this manner. *Verizon/MCI Order* ¶ 52.

Third, with respect to the very high speed broadband services at issue here, there also should be no concern. Competing carriers can provide such services because there is necessarily sufficient capacity at the location to justify new construction for these high-capacity services. By definition, these services will involve customers purchasing OCn-level capacity. When the Commission has previously looked at OCn-level services in isolation, it has consistently held that they "produce revenue levels" that justify loop construction, "providing the opportunity for competitive LECs to offset the fixed and sunk costs associated with the loop construction." *Triennial Review Order* ¶ 316; *see Triennial Review Remand Order* ¶ 182 n.493. The Commission observed that "[r]ecord evidence reflects competitive deployment of loops at the OCn level and competitive carriers confirm they are often able to economically deploy these facilities to the large enterprise customers which use them." *See Triennial Review Order* ¶ 315.

The situation here is accordingly distinct from the one at issue in the Verizon/MCI merger proceeding. There, the Commission was "focuse[d] on special access competition generally," rather than "on the likelihood of competitive facilities deployment" at any capacity level in particular. *Verizon/MCI Order* ¶ 27 & n.89. As a result, the Commission did not conduct a separate analysis for different capacities of special access services, including OCn-level services. While that may make sense in a merger proceeding where the Commission is trying to gauge the competitive impact to customers whose demand is unknown, here the services at issue are, by definition, only the highest speed services. Thus, the Commission's conclusions about the likelihood of competitive entry at a building as a general matter "where the capacity demanded is relatively limited" and costs and other barriers could limit deployment – do not apply to the OCn-level services at issue here, for which the Commission has found that competitive supply is not only possible but likely. *Id.* ¶ 39.

* * *

For all the foregoing reasons, the Commission should grant Verizon's petition and provide it with flexibility to offer high-speed packetized and optical broadband services on either a private carriage or common carriage basis so that it can better compete for the business of the sophisticated customers who buy these services.

We would be happy to discuss further the points raised here, and to respond to any questions.

Sincerely,

Edward Shakin

Attachments

Attachment 1

List of Broadband Services for Which Verizon Is Seeking Forbearance

1. ***Frame Relay Service (FRS)***: a connection-oriented packet switched data service that allows for the interconnection of Local Area Networks (LAN) or other compatible customer equipment across a wide area for the purpose of interstate access. FRS allows for the transfer of variable length frames (packets).

2. ***ATM Cell Relay Service***: a fast-packet, cell-based technology that can support user applications requiring high-bandwidth, high-performance transport and switching. This connectivity is provided via Permanent Virtual Circuits (PVCs) and/or Switched Virtual Circuits (SVCs) that are implemented over access facilities and switches that are dedicated to high-speed telecommunications services.

3. ***Internet Protocol – Virtual Private Network (IP-VPN) Service***: a connection-less, packet-based advanced data service that provides connectivity between customer locations. Some uses of IP-VPN Service include enabling business customers to communicate with branch offices, to exchange corporate network traffic, and to establish communication with external partners such as customers, business partners and suppliers.

4. ***Transparent LAN Service (TLS)***: a high-speed packet-based data service that uses a shared fiber network to allow for the interconnection of Local Area Networks (LANs) across selected metropolitan areas. TLS includes Ethernet TLS (services provided within a LATA) and National TLS (services that allow for interconnection of Ethernet TLS between LATAs).

5. ***LAN Extension Service***: service that provides fiber transport connectivity between two customer designated premises, converts an optical signal to an electrical Ethernet signal, and is designed to be connected to the Ethernet switch of the customer. This service transmits packetized traffic.

6. ***IntelliLight Broadband Transport (IBT)*** (to the extent that the service is not used to provide TDM-based transport): provides high speed synchronous optical fiber-based full duplex data transmission capabilities. IBT is provisioned over the Verizon's shared SONET and WDM networks and provides customers SONET based broadband access transport with the capacities ranging from 152.52 Mbps to 9.953 Gbps.

7. ***Custom Connect*** (to the extent that the service is not used to provide TDM-based transport): provides high speed synchronous optical fiber-based full duplex data transmission capabilities. Custom Connect is provisioned over the Verizon's

shared SONET and WDM networks and provides customers SONET based broadband access transport with the capacities ranging from 152.52 Mbps to 9.953 Gbps.

8. ***Verizon Optical Networking***: an Ethernet over SONET technology, providing managed optical transport of data signals of various speeds. The service provides a dedicated path through the network with a guaranteed amount of throughput. Verizon Optical Networking provides a native Ethernet interface at the end user premise.

9. ***Optical Hubbing Service (OHS)***: provides a dedicated high capacity optical facility for the transmission of up to eight (8) optical connections between a customer's designated premises and an optical hub. An optical hub is a Verizon wire center assigned to OHS where optical connections to OHS occur. The service utilizes high capacity optical facilities configured in a ring architecture or topology that provides survivability. The product includes the option for customers to interface to OHS with a native Ethernet handoff.

10. ***IntelliLight Optical Transport Service (IOTS)***: uses dense division multiplexing (DWDM) and provides managed optical transport of multiple protocols that are transmitted over a single fiber optic pair. IOTS is configured in a diversely routed ring architecture or topology and can be arranged as a full (closed) ring or as a partial ring. The ring architecture allows for point-to-point optical services of varying bandwidths to be multiplexed on or off of the ring. IOTS allows for the native transmission of multiple high-speed protocols, such as Ethernet, SAN and SONET, with various bandwidths over a single customized network. The wavelengths are arranged in a channelized format such that the protocol transmitted over each channel is independent of every other channel on the IOTS ring.

November 11, 2003

United States of America
Telecommunications
Enterprise Telecom Serivces

Enterprise Telecom Serivces

Initiation of Coverage

Enterprise Telecom; A Comeback Begins

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Sector View:

New: 2-Neutral

Old: 2-Neutral

Investment conclusion

- We initiate coverage of Enterprise Telecom Services and are optimistic regarding the industry's financial and operational streamlining, the consolidation that has occurred to date (and more to come), and cautiously optimistic regarding improving demand and pricing over the next year.

Summary

- We expect a cyclical up-tick, improving operational efficiencies, and industry consolidation to drive stabilizing revenues, improving margins and 10% EBITDA growth in 2004 for the commercial units of our covered Enterprise Carriers.
- We favor Carriers with greater high-end Enterprise exposure, particularly wholesale, and less SME. While competition remains intense across Enterprise telecom, we believe it is poised to improve in 2004 within the wholesale segment, while it is likely to intensify within SME.
- We believe the supply/demand imbalance has finally begun to stabilize. On the supply side, due to recent consolidation and selected bidder-ineligibility among the financially weaker carriers, we believe the bidding-group on a given contract has been reduced by almost 50% from '01's 8-10 bidders. On the demand side, we are seeing the early signs of improvement in key employment, technology sales (chips), and a proprietary Lehman Brothers Fortune 500 Survey.
- Enterprise coverage group valuations hover near 10-year lows - LVLT is our top recovery pick, while T is our best value pick.

Enterprise Telecom Services Launch:

We initiate specialized coverage of the Enterprise Telecom Services sub-sector of the US Wireline Telecom Services market, with an emphasis on carriers specializing in the high-end of the market (Wholesale/Large Enterprise), companies designated as "Enterprise Carriers". We are optimistic regarding the industry's financial and operational streamlining, outlook for 2004 revenue stabilization, margin improvement and EBITDA growth, the consolidation that has occurred to date (and much more to come), and cautiously optimistic regarding improving demand and pricing over the next year. *Please see our companion notes on AT&T, Sprint (FON), and Level (3) for company-specific information, as well as our forthcoming industry report (under the same title as this note) and company reports for extensive details developing the themes outlined in this note. We will be hosting an investor call today at 10:30 a.m. EST; the dial-in numbers: (800) 706-8249 (US), (706) 634-5881 (Intl), and 0(800) 953-0406 (UK toll-free), and the conference ID is 3972920.*

Figure 1: Enterprise Telecom Services Coverage Universe

Company Rating, Target & Enterprise Value						
Company	**Ticker**	**Price**	**LEH Rating**	**Price Target**	**Enterprise Value $B**	**Investment Thesis Synopsis**
AT&T	T	$19.08	**1-OW**	$24	$23.5	Dominant Large Enterprise Carrier; Good value & further margin improvement likely; Divs & FCF provide strong value support
Level 3	LVLT	$5.33	**1-OW**	$7	$8.1	A wholesale leader & consolidator; Strong Gwth opps & dilution manageable; No liq. issues
MCI	MCIAV *(when issued)*	$25.26	**NR**		$11.7	Restructuring opportunity, with growth upside, but a lot to prove; await audited financials
Sprint	FON	$15.22	**2-EW**	$18	$13.8	Local business supports FON-Commercial, gwth limited; Strong value support at $16

PLEASE SEE ANALYST(S) CERTIFICATION(S) ON PAGE 32 AND IMPORTANT DISCLOSURES BEGINNING ON PAGE 33

Investment Thesis: Enterprise Telecom; A Comeback Begins

- We expect a cyclical up-tick, improved operational/financial efficiencies, and industry consolidation to drive stabilizing revenues, materially improved margins and 10% EBITDA growth in 2004 for the commercial units of the Enterprise Carriers in our coverage group. These factors are expected to drive increasing cashflows to equity holders via dividend increases, share buybacks, and operating free cashflow.

- In general, we favor Carriers with greater exposure to the high-end of Enterprise telecom, particularly Wholesale, and less exposure to SME. While competition is intense across the sector, we believe it is poised to improve in 2004 within the Wholesale market, while it is likely to intensify within SME, as the RBOCs aggressively attack that market. We believe Wholesale/Large Enterprise revenue comparisons and margins will improve throughout 2004, while SME revenues and margins remain weak.

- We believe that the supply/demand imbalance has finally begun to stabilize – on the supply side, we estimate that North American fiber route miles could be reduced by up to 30% within 1-2 years (already about 11% reduced) – on the demand side, we are seeing early signs of improvement in commercial bandwidth requirements (our Enterprise Demand Index and Fortune 500 Survey).

- Enterprise coverage group valuations hover near 10-year lows, as investor sentiment remains uniformly abysmal. High-end carriers with the most efficient networks and improving sequential revenues and margins offer compelling cyclical/recovery investments – Level (3) is our top pick in this regard – while AT&T is our best value pick.

Enterprise Carrier – Coverage Group Highlights:
Within our Enterprise Telecom Services coverage universe, we include telecom carriers that derive more than 50% of their total revenues from commercial users, with an emphasis on carriers that specialize in service delivery to Large Enterprises (Fortune 1,000 enterprises) and Wholesale users. This includes the following coverage stocks:

- AT&T (1-OW, PT=$24): Assumption of coverage with ratings and price target increases from 2-EW and $22 respectively. *AT&T is our top value pick in the group as it trades at a low 3.0x '04 EBITDA, has a 5% dividend yield and a massive $3.5* billion in expected '04 FCF. We believe BS margins will expand 100 bps in '04, improving BS EBITDA growth to 1% (up from -12% in 2003). While consolidated revenues and EBITDA will still decline in '04, the CS drag is not as much as originally expected. Combined, these factors are driving a greater discounted value of cashflows, driving our upgrade on the stock. Likely further dividend increases or share buybacks in the next few months should also support the stock.

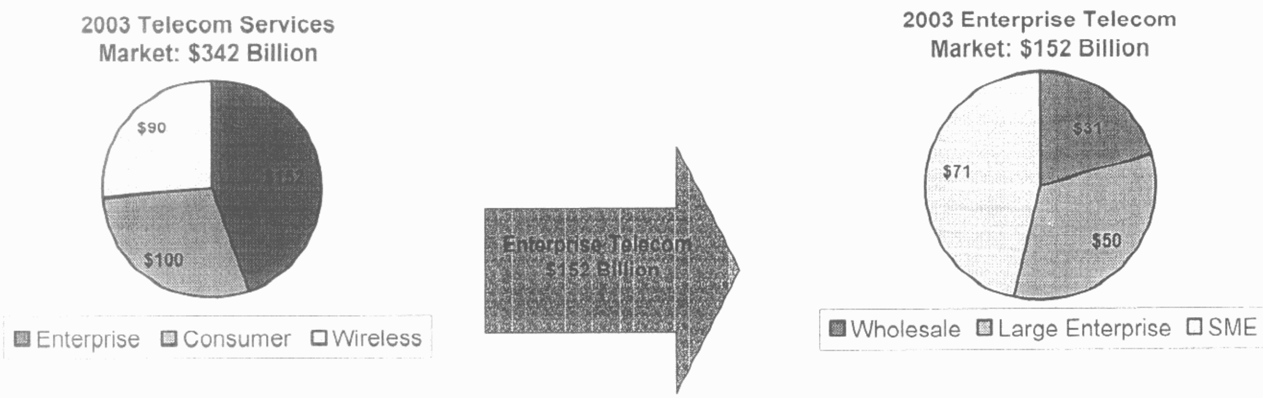
- Level (3) (1-OW, PT=$7): Initiation of coverage as our top pick in the sector, given its pure-play Wholesale position, operating momentum, liquidity, and improving balance sheet. The company is experiencing sequential revenue growth and delivered 380 bps in sequential Communications EBITDA margin improvement in 3Q. We expect Communications revenues to grow 9% in '04, while EBITDA should grow 29%. Leverage and dilution are less of an issue as the company is FCF-positive, has no material debt maturities until '08, is more modestly 55% debt-to-enterprise value leveraged and no convertible strike prices until $7.18.

- Sprint-FON (2-EW, PT=$18): Assumption of joint coverage with its rating maintained at 2-EW, but an increased $18 price target (up from $14). We expect FON to cut costs aggressively in '04, which should drive 3% EBITDA growth, despite nearly 3% revenue declines. By 2006 we expect EBITDA margins to expand by more than 400 bps, driving our increased price target. Company has strong value support at $16, an implied $1,800 per local access line valuation, and a healthy balance sheet. Revenue growth will remain challenging, however, driving our maintained 2-EW rating.

- MCI (Not Rated): We are initiating coverage on the when-issued equity of MCI Communications, but await audited financials, more insight from management, and an exchange--traded equity before issuing a rating and price target. Operationally, we believe the company has significant upside opportunities, as highlighted in the company's bankruptcy disclosure documents, but also a lot to prove. Facilitating this opportunity is the company's increased financial flexibility, resulting from its restructured and lean balance sheet (approximately $3.5 billion in net debt).

Enterprise Telecom Services – Defining the Industry:
In evaluating the overall Enterprise Telecom Services market, we include all the assets, financing, revenues and cashflows associated with the units servicing commercial customers. We have constructed our industry compilation using both bottom-up and top-down methodologies, factoring in data from internal sources, company feedback and FCC reports. Importantly, although we include all relevant information from any carrier selling commercial services in our industry compilation, we specifically define "Enterprise Carriers" within this report as carriers that specialize in service delivery to Large Enterprise and Wholesale customers and that receive more than 50% of their revenues from commercial clients. Therefore, the primary Enterprise Carrier segment is comprised of the incumbent IXC group (AT&T, MCI, Sprint), the emerging Network Carriers (Level (3) and its competitors), and the remaining CLECs. We estimate that the broad Enterprise market totals $152 billion in 2003 revenue, or approximately 45% of the total telecom services market and 60% of the wireline services market. Within Enterprise, we estimate that $31 billion is Wholesale (20% of Enterprise), $50 billion is Large Enterprise (33%), and $71 billion is SME (47%). Our research effort will focus on the Wholesale and Large Enterprise segments, where the Enterprise Carriers are best positioned to create long-term shareholder value. We outline the Enterprise market below.

Figure 22: Enterprise Telecom Services – A Massive Market with Distinct Segments



"Enterprise Telecom Services" Coverage

SME
* Dominated by RBOCs & LECs
* Highly fragmented
* Less sophisticated services
* Local/Regional Infrastructure Required
* Key Products (wireline):
  - Local & LD Voice
  - T-1/fractional, DSL, low-end data

Large Enterprise
* Dominated by AT&T, MCI, Sprint
* '03 Mkt Shrs: T = 26%, MCI = 14%, FON = 8%
* National/Global WAN & customer service/ support infrastructure req. (many POPs)
* Fortune 1,000 focus
* Customized data/voice/network integration
* Key Products (wireline):
  - Private LAN-to-WAN services
  - Dedicated Hi-cap circuits
  - Public IP access & security
  - LD & Local Voice (PBX)

Wholesale
* Currently Dominated by AT&T, MCI
* Sprint, Qwest, Level (3) are next tier
* National/Global WAN & customer service/ support infrastructure req. (fewer POPs)
* Top 300 global users of bandwidth: IXCs, ILECs, CLECs, ISPs, PTTs, Cable, Sat.
* Customized data/voice/network integration (with more real-time provisioning & service)
* Key Products (wireline):
  - Similar to Large Enterprise, only more capacity, faster provisioning

Expected Enterprise Carrier Improvements:

We expect a cyclical up-tick, significant operational/financial improvements, and industry consolidation to drive stabilizing revenues, materially improved margins and 10% EBITDA growth in 2004 for the commercial units of the Enterprise Carriers in our coverage group. These factors are expected to drive increasing cashflows to equity holders via dividend increases, share buybacks, and growing operating free cashflow (OFCF).

- A modest cyclical up-tick, led by estimated 5% growth in 2004 Fortune 500 telecom service budgets (versus 5% declines in 2003), is expected to stabilize 2004 revenues for our Enterprise Carrier coverage group commercial revenues at -1% (versus -6% in 2003).

- A 25% reduction in headcount from 2000 to current has driven an 18% improvement in productivity per employee. Combined with the benefits of other massive network and systems cost/efficiency initiatives, we expect Enterprise Carriers to improve 2004 EBITDA margins 220 bps and grow EBITDA 10%.

- Industry consolidation, and bidding-ineligibility by weaker players, has reduced the number of bidders per contract from 8-10 in 2001 to 4-6 today. We expect increased financial slack resulting from reduced leverage to help drive ongoing consolidation of weaker, cashflow-negative carriers. Industry debt is down 58% from 2001 to 2003 ($224 billion to $95 billion) and debt/EBITDA has declined from 6.8x to 3.1x.

Figure 3: Expected 2004 & 2005 Enterprise Carrier Improvements

	2000	2001	2002	2003f	2004f	2005f
Enterprise Industry:						
Revenue Growth	**13.7%**	**1.6%**	**-7.0%**	**-4.7%**	**2.1%**	**4.6%**
bp Change		-1210 bp	-860 bp	230 bp	680 bp	250 bp
# of Bidders per Contract	**8-10**	**8-10**	**8-10**	**4-6**	**3-5**	**3-4**
Enterprise Carrier Coverage Group: Commercial Metrics						
Revenue Growth	**6.4%**	**0.6%**	**-6.1%**	**-6.3%**	**-0.6%**	**3.6%**
bp Change		-580 bp	-670 bp	-20 bp	570 bp	420 bp
Headcount (000)	**164**	**150**	**129**	**123**	**123**	**123**
% Change		-8.8%	-13.8%	-4.9%	0.0%	0.0%
Rev. Productivity/Employee ($ 000)	**$382**	**$421**	**$459**	**$452**	**$449**	**$466**
% Change		10.3%	9.0%	-1.6%	-0.6%	3.6%
EBITDA *Margins*	**30.1%**	**25.0%**	**23.8%**	**21.2%**	**23.4%**	**25.5%**
bp Change		-510 bp	-120 bp	-260 bp	220 bp	210 bp
OFCF ($ bil)	**($9.8)**	**($11.2)**	**$6.2**	**$6.2**	**$4.6**	**$5.2**
Leverage (Consolidated Debt/EBITDA)	**5.6x**	**6.8x**	**3.8x**	**3.1x**	**2.7x**	**2.4x**

Favor Exposure to High-End Enterprise:
In general, we favor Enterprise Carriers with greater exposure to the high-end of Enterprise telecom and Wholesale, and less exposure to SME. While competition is intense across the Enterprise market, we believe it is poised to improve in 2004 within the Wholesale market, while it is likely to intensify within SME for Enterprise Carriers, driven by the RBOCs. Early signs of this were evident in Enterprise Carrier 3Q03 earnings reports, as renewed point-of-sale long distance and low-speed private line price declines added a discernable drag to revenues.

- The operational and financial improvements expected for 2004 should flow most directly to the high-end of the Enterprise market, due largely to the core nature of the improvements and to the improving competitive landscape within those segments.

- The 2004 growth and margin outlook is better for Enterprise Carriers within the Wholesale segment, driven ironically by increasing competition within the SME and Consumer market segments by traditional and non-traditional carriers that lack a national backbone and rely on wholesalers to provide the wide area networking.

- Despite the much publicized hyper-competition within the Wholesale market, we believe this segment is the one best positioned to see improving competitive dynamics in 2004, as the number of competitors and network miles are expected to decline.

- While SME has better margins and good long-term growth, to the incumbent Enterprise Carriers it represents the segment expected to most intensify competitively in 2004, as competitive threats emerge from well-funded and aggressive RBOCs. SME revenues are expected to cause 100 bps drags to commercial revenue growth for AT&T and MCI in 2004.

- The following table highlights that AT&T and MCI have the largest long distance SME exposure, while Sprint has materially less and Level (3) has none. Of note, Level (3) derives 100% of its revenues from the portion of the market we expect to perform the best in 2004 (Wholesale).

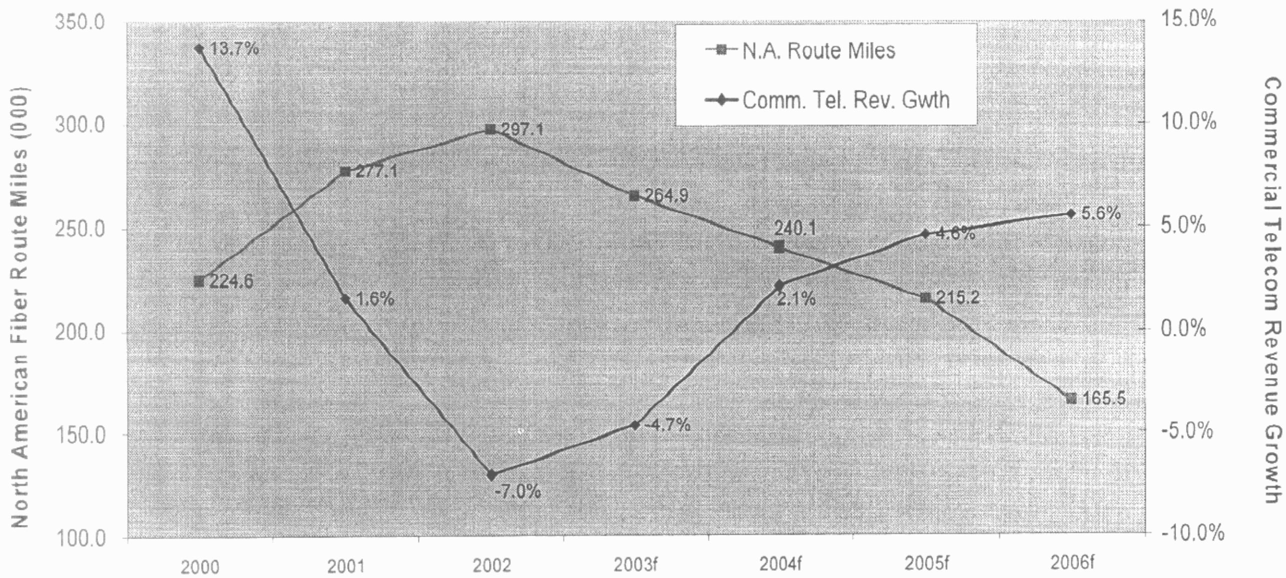
Figure 4: Enterprise Carrier SME Exposure

	SME		High-End		
Enterprise Carrier	**LD SME**	ILEC SME	**Total High-End**	Wholesale	Large-Enterprise
AT&T Bus. Serv.	**24%**	0%	76%	24%	52%
MCI Commercial	**28%**	0%	72%	33%	39%
FON-Commercial	**14%**	23%	62%	22%	41%
Level (3)	**0%**	0%	100%	100%	0%
Enterprise Carrier Avg.	**23%**	2%	75%	30%	45%

Improving Supply/Demand Balance:
We believe that the supply/demand imbalance that has plagued the industry has finally begun to stabilize. On the supply side, we estimate that North American fiber route miles could be reduced by a cumulative 30% within 1-2 years (already about 11% reduced). Additionally, the number of bidders per contract has fallen from 8-10 in 2001 to 4-6 today (and likely 3-5 by 2004). On the demand side, we are seeing the early signs that commercial bandwidth requirements are beginning to improve, as indicated by our Enterprise Demand Index improvements and our Fortune 500 Survey. Currently, we are forecasting a modest recovery, but if job growth and technology sales continue accelerating at current rates there could be upside to our numbers.

- To date, one US-based network carrier has been consolidated and its network decommissioned (Genuity), and a European carrier is scaling back its US operations.
- Another two carriers will likely consolidate within 1-2 years, as they remain cash-flow-negative and have limited access to capital .
- Enterprise telecom is a cyclical business – we believe we have found two reliable leading indicators in terms of forecasting changes in commercial telecom services revenue growth, namely employment growth and semi-conductor revenue growth, and constructed an Enterprise Demand Index (EDI).
- Our EDI score of 0.5 signals an expected moderate improvement to current 4% Enterprise telecom service revenue declines (to begin by 2Q04), while our Fortune 500 Survey indicates an expected 5% increase in 2004 telecom service spending, up from -5% in 2003.

Figure 5: Decreasing Fiber Route Miles Supports Improving Enterprise Telecom Services Industry Revenue Growth



Diverging 2004 Performance – High-End Turning the Corner

While overall revenues for our Enterprise Carrier coverage group are expected to decline 1% in 2004, this masks two diverging trends that we expect to develop throughout the year – improving quarterly Wholesale/Large Enterprise revenue growth and margins versus continued SME revenue declines and pressured margins.

- Expected 1% declines in 2004 Enterprise Carrier revenue masks important underlying trends that favor the high-end of the market, namely improving revenue growth and margins, driven by improving demand and cost reduction initiatives.

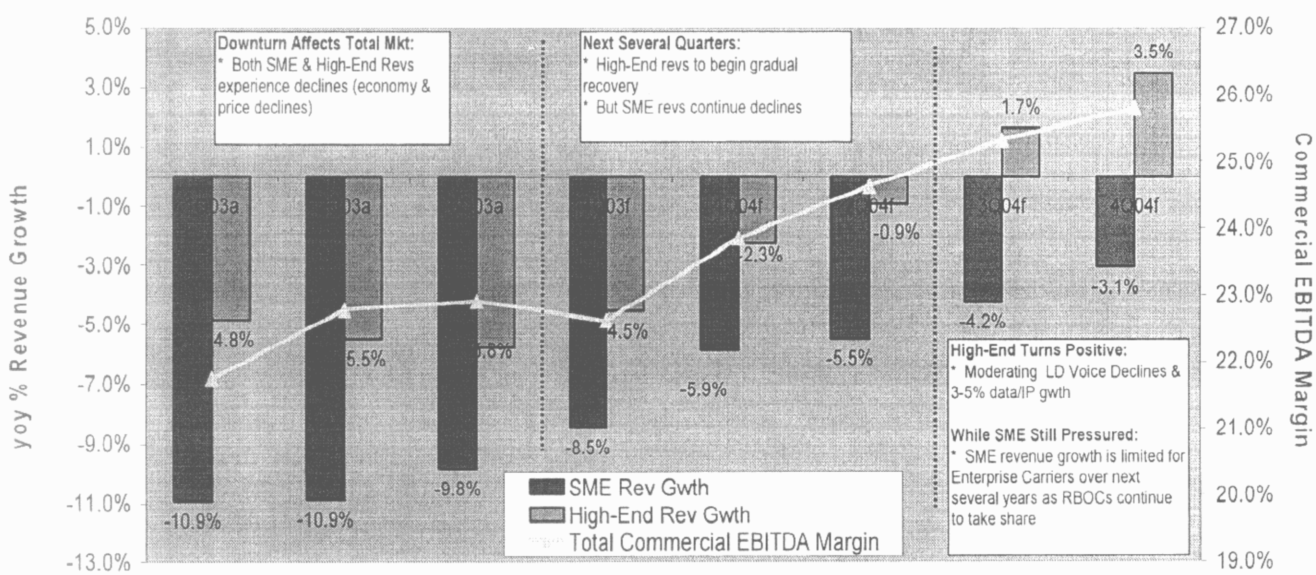
- We expect Wholesale/Large Enterprise revenue growth will see improving quarterly yoy growth rates, driven by improving competitive dynamics, better pricing stability and key growth-product opportunities (VoIP and MPLS-enabled LAN-to-WAN services). By 4Q04, we expect high-end revenues will be growing 3.5% yoy for our Enterprise Carriers, while SME is still expected to be declining 3.1%.

- While VoIP does not represent a net growth opportunity to the incumbent market, it does represent a material Wholesale opportunity given that the retail providers of this new service mostly lack a national backbone and will rely on wholesalers.

- Additionally, MPLS-enabled services marketed to enterprises, by RBOCs in particular, provide another such Wholesale growth opportunity .

- We expect Wholesale/Large Enterprise to benefit most from cost-reduction initiatives. Since most of these center around the network core and related systems, the benefits should flow mostly to services that most intensively utilize the core.

Figure 6: Diverging 2004 Performance within Enterprise – High-End Versus SME



Valuations at 10-Year Lows – Provides Targeted Opportunities:
Enterprise coverage group valuations hover near 10-year lows, creating investment opportunities as the entire sector remains tarred with a broad brush. High-end carriers with the most efficient networks and improving sequential revenues and margins, and less exposure to SME, offer investors the chance to buy at a market-bottom values that do not yet reflect their improving underlying fundamentals.

- Level (3) is our top pick in the space, with its Wholesale pure-play model, its industry leading margins (that continue to improve sharply, up 380 bps in 3Q), its FCF-positive status and improving balance sheet. It is most cleanly positioned to benefit from the improvements we expect in the Enterprise market in 2004. We believe the bear case valuation is $6 and buy aggressively below this level.

- AT&T, while exposed to SME, is our top value pick, given its dominant position within Large Enterprise, improving margins, and very cheap valuation at 3.0x 2004 EBITDA. While revenue and EBITDA growth will remain pressured due to Consumer/SME drags, we believe the discounted value of cashflows is worth more than current market prices. A 5%+ dividend yield and potential for additional dividend increases and/or share buybacks should provide strong support for the stock.

- MCI offers strong potential upside, given its vast opportunity for margin improvement. Based on the current when-issued trading levels, the company is trading modestly above AT&T, at 3.4x 2004 EBITDA. We await audited financials and more insight from management in order to fully develop our thesis.

Figure 7: Enterprise Carrier Coverage Group's Valuation Hovering at 10-Yr Lows – EV / EBITDA Multiple